SERVICE MANUAL

NECKERMANN

LA - 1000 / LA - 1200

SERVICE MANUAL

LA-1200

METER ADJUSTMENT

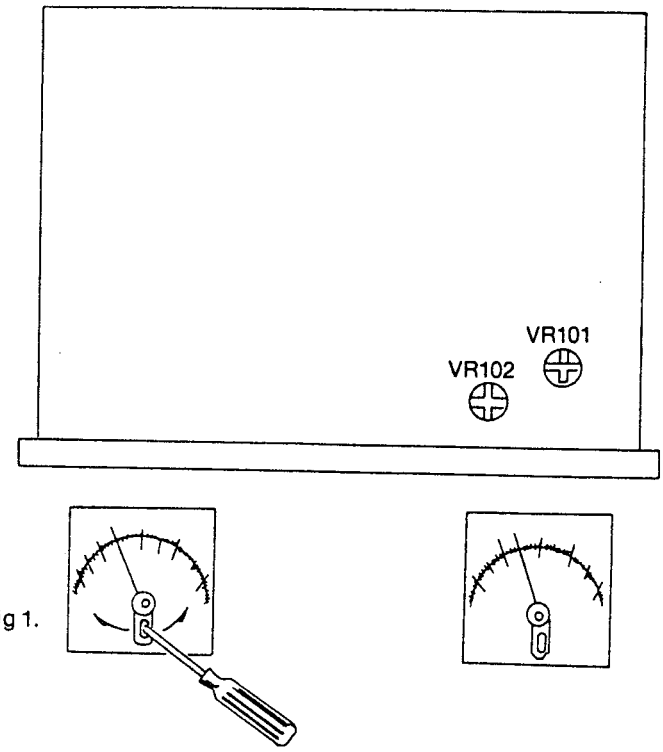
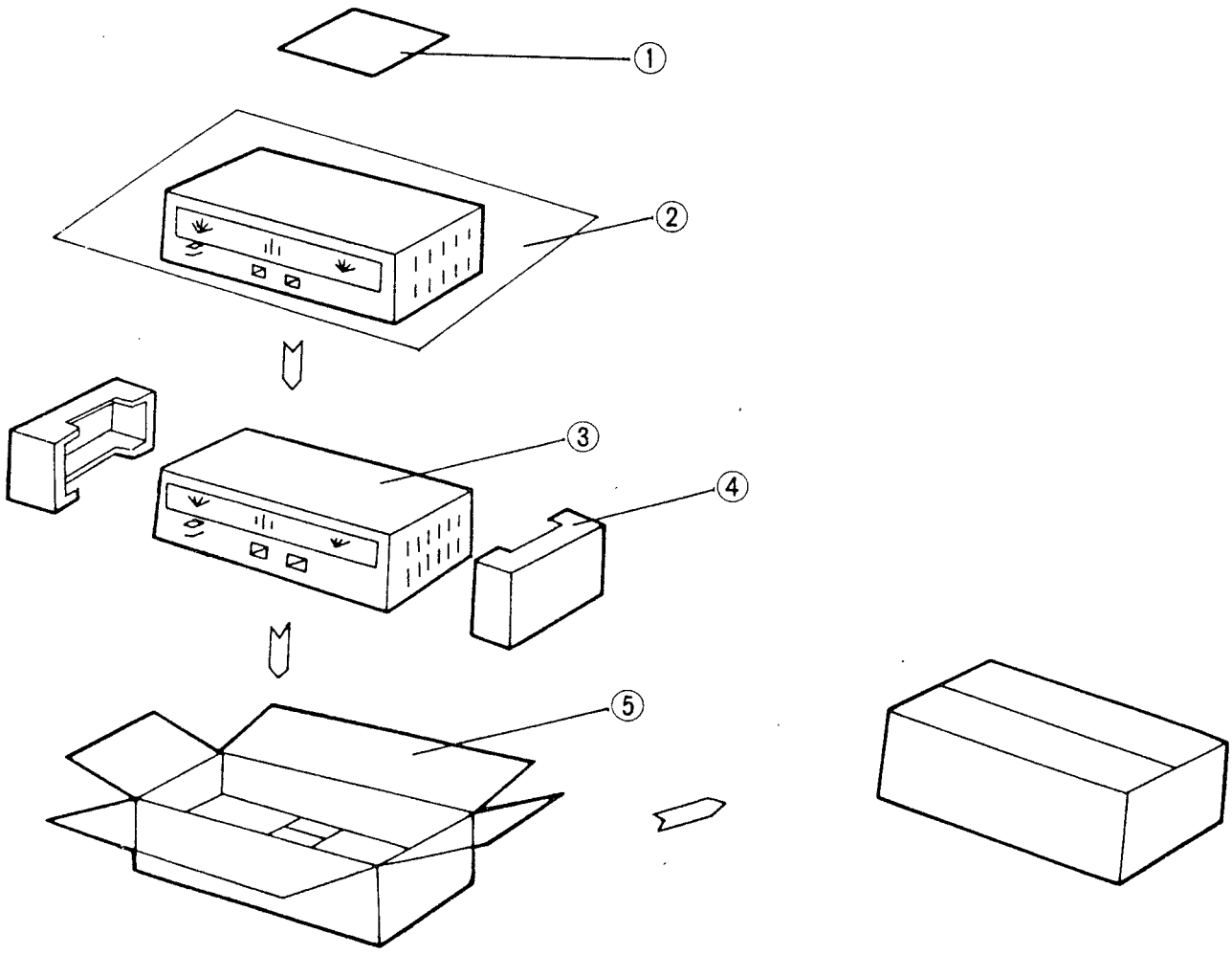


Fig 1.

1. POWER METER ADJUSTMENT WITH POWER "OFF"
   Remove front panel and adjust the meter needle to "0" on the scale (Fig. 1)
2. POWER METER ADJUSTMENT WITH POWER "ON"
   Turn power on, feed a 1kHz, 1V RMS signal from a signal generator to the L channel input jack of the PA-1200B With the speaker or 8 ohm dummy look removed, adjust VR102 till the meter needle points to "low" on the scale.
3. Set R channel meter by adjusting VR101 in the same manner and signal fed into the R channel input jack.

PACKING

Mark	No.	Part No.	Description
	1	3-110-703-01	Operating Instruction
	2	8-190-133-01	Poly Sheet
	3		Power Amp Set
	4	3-111-106-01	Side pad(R,L)
	5	3-110-702-01	Packing Case



NOTES : Assignment of common parts codes.

RESISTOR

1-115-□□□-2□ Carbon film resistor, ±5%, ½W
1-114-□□□-2□ Carbon film resistor, ±5%, ¼W

(2) lead type
(1) resistor value

Examples

(1) Resistor Value

0.47 ohm --- 478 4.7 ohm --- 479 68 ohm --- 680
470 ohm --- 471 2.7 Kohm --- 272 56 Kohm --- 563
150 Kohm --- 154

(2) Lead type

PS type --- 1 TP type --- 5

CERAMIC CAPACITOR

1-886-□□□-□5 Ceramic capacitor
Disc type
Temp. coeff. P350 - N1000, 50V
(2) tolerance (capacity deviation)
(1) capacity value

Examples

(1) Capacity Value

4 pF --- 040 47 pF --- 470 220 pF --- 221
1000 pF --- 102

(2) Tolerance

±0.25 pF --- 0 ±0.5 pF --- 1 ±1 pF --- 2
±2 pF --- 3 ±5 pF --- 4 ±10 pF --- 5
±20 % --- 6 +50%~-20% --- 7 +40%~-20% --- 8
+80%~20% --- 9

MYLAR CAPACITOR

1-506-□□□-41 Mylar capacitor, ±5%, 50V
(1) capacity value

Examples

(1) Capacity Value

0.0047 uF --- 471 0.0056 uF --- 562 0.047 uF --- 473
0.68 uF --- 684

ELECTROLYTIC CAPACITOR

1-42□-□□□-6□ Electrolytic capacitor, ±20%
(3) lead type
(2) capacity value
(1) working voltage

Examples

(1) Working Voltage

6.3 V --- 1 10 V --- 2 16 V --- 3
25 V --- 4 35 V --- 5 50 V --- 6

(2) Capacity Value

0.47 uF --- 478 4.7 uF --- 479 33 uF --- 330
470 uF --- 471 2200 uF --- 222

(3) Lead type

A type --- 1 A type TP --- 5

Mark	Part NO	Symbol&Description
	1-114-303-25	R107,108
	1-114-331-25	R109,110,111,112,201 202,203,204,205,206, 207.208,211,212,243, 244
	1-114-332-25	R263,264
	1-114-333-25	R304,340
	1-114-362-25	R405
	1-114-391-25	R322,323
	1-114-392-25	R311,409
	1-114-432-25	R408
	1-114-433-25	R403,404
	1-114-434-25	R305
	1-114-470-25	R139,140,141,142, 249,250,251,252
	1-114-471-25	R147,148
	1-114-472-25	R237,238,309
	1-114-473-25	R101,102,307
	1-114-560-25	R143,144
	1-114-563-25	R213,336,337
	1-114-622-25	R227,228,231,232, 306,310
	1-114-681-25	R133,134
	1-114-752-25	R401,402
	1-114-820-25	R103,104
	1-114-821-25	R245,246,247,248
	1-114-822-25	R235,236
	1-114-823-25	R229,230
	1-114-911-25	R302
	1-118-102-25	R1,2,3,4

Others

Mark	Part NO	Symbol&Description
	2-155-503-01	4P pin jack(output) ✓
	2-155-504-01	6P pin jack(phono1,2 ✓ tuner ✓,Aux ✓,CD ✓,tape1,2) ✓
	2-158-578-01	JH,terminal 3P
	2-158-582-01	JC,JE,JF,terminal 7P
	2-158-583-01	JA,terminal 8P
	2-158-584-01	JB,JD terminal 9P
	2-155-536-01	Jack(phone) ✓
	2-999-107-01	Fuse holder
	3-312-045-01	Heat sink
	7-764-408-02	Screw
	2-170-390-02	PCB

Control Assembly

Semiconductors

Mark	Part NO	Symbol&Description
	2-421-180-41	D310,zener diode ✓
	2-419-121-01	D301-305,LED ✓

Switch

Mark	Part NO	Symbol&Description
	2-202-182-01	S1,push switch ✓
	2-202-183-01	S2,S3,push switch ✓
	2-202-184-01	S4,push switch ✓

Resistors

Mark	Part NO	Symbol&Description
	2-501-172-01	VR1,rotary volume ✓
	2-501-173-01	VR2,rotary volume ✓
	2-501-174-01	VR3,4,rotary volume ✓
	1-114-105-25	R257,R258
	1-114-222-25	R253,R254
	1-114-223-25	R259,R260
	1-114-392-25	R261,R262
	1-114-473-25	R215,R216
	1-114-512-25	R219,R220
	1-114-562-25	R217,R218
	1-114-821-25	R255,R256

Capacitors

Mark	Part NO	Symbol&Description
	1-453-100-61	C223,C224
	1-506-124-41	C205,C206
	1-506-153-41	C219,C220
	1-506-183-41	C217,C218
	1-506-224-41	C201,C202
	1-506-332-41	C215,C216
	1-506-823-51	C221,C222
	1-886-361-41	C203,C204

Others

Mark	Part NO	Symbol&Description
	2-170-391-01	PCB
	3-110-912-01	LED Holder

EXPLODED VIEW PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks **and**
  GENERALLY MOVES FASTER THAN
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

Part List of Explode View

No.	Part No.	Description
1	3-111-553-01	Volume knob
2	3-111-554-01	Rotary knob
3	3-111-551-01	Front panel
4	3-110-915-01	Push escutcheon
5	3-110-913-01	Function knob"A"
6	3-110-916-01	Power escutcheon
7	3-312-924-01	Power knob
8	3-110-902-01	Guide nut
9	3-110-906-01	Panel stay
10	2-202-210-01	Power S/W
11	3-730-419-01	Side stay
12	3-730-421-01	Center frame
13	3-112-642-01	PCB holder
14	3-110-910-01	Trans frame
15	2-131-320-01	Power trans
16	3-111-552-01	Rear panel
17	3-113-401-01	Strain relief bushing
18	2-211-129-01	AC power cord
19	3-730-427-01	Bonnet case
20	2-155-705-01	Ground terminal
21	A-170-390-02	Main PCB ass'y
22	A-170-391-01	Control PCB ass'y
23	3-110-914001	Function knob"B"
24	3-110-911-01	LED escutcheon
25	3-730-426-01	Bottom plate
26	3-312-639-01	Foot

NOTES : Assignment of common parts codes.

RESISTOR

1-115-□□□-2□ Carbon film resistor, ±5%, ¼W
1-114-□□□-2□ Carbon film resistor, ±5%, ¼W

(2) lead type
(1) resistor value

Examples

(1) Resistor Value

0.47 ohm --- 478	4.7 ohm --- 479	68 ohm --- 680
470 ohm --- 471	2.7 Kohm --- 272	56 Kohm --- 563
150 Kohm --- 154		

(2) Lead type

PS type --- 1	TP type --- 5

CERAMIC CAPACITOR

1-886-□□□-□5 Ceramic capacitor
Disc type
Temp. coeff. P350 - N1000, 50V

(2) tolerance (capacity deviation)
(1) capacity value

Examples

(1) Capacity Value

4 pF --- 040	47 pF --- 470	220 pF --- 221
1000 pF --- 102		

(2) Tolerance

±0.25 pF --- 0	±0.5 pF --- 1	±1 pF --- 2
±2 pF --- 3	±5 pF --- 4	±10 pF --- 5
±20 % --- 6	+50%~-20% --- 7	+40%~-20% --- 8
+80%~20% --- 9		

MYLAR CAPACITOR

1-506-□□□-41 Mylar capacitor, ±5%, 50V

(1) capacity value

Examples

(1) Capacity Value

0.0047 uF --- 471	0.0056 uF --- 562	0.047 uF --- 473
0.68 uF --- 684		

ELECTROLYTIC CAPACITOR

1-42□-□□□-6□ Electrolytic capacitor, ±20%

(3) lead type
(2) capacity value
(1) working voltage

Examples

(1) Working Voltage

6.3 V --- 1	10 V --- 2	16 V --- 3
25 V --- 4	35 V --- 5	50 V --- 6

(2) Capacity Value

0.47 uF --- 478	4.7 uF --- 479	33 uF --- 330
470 uF --- 471	2200 uF --- 222	

(3) Lead type

A type --- 1	A type TP --- 5

.1 POWER SWITCH

Press to on position to turn on the pre-amplifier. Upon power up, a muting circuit presents a short delay in order to suppress the sometimes annoying sound present at switch-on.

2. BASS AND TREBLE CONTROLS

Use these controls to adjust the bass and the treble. If you turn the bass control clockwise from its center position, you will be able to emphasize the sound in the low-frequency range. Conversely, turning the bass control counter clockwise from the center position, you will attenuate the sound.

Use the treble control to adjust the sound in the high-frequency range in the same manner.

3. BALANCE CONTROL

Use this control to balance the volume of the left and right channels.

4. VOLUME CONTROL

Use this control to adjust the output level to the speakers and headphones. Turn it clock wise to increase the output level. No sound will be heard if you set it to "0".

5. HEADPHONE JACK

'lug the headphones into this jack when you want to listen through your stereo headphones.

Besure to turn down the volume level before plugging in the headphones. Turn up the volume level to a comfortable listening level once the headphones are adjusted.

6. FUNCTION SELECTOR

Use this selector to select the program source. When set, the function indicator above the panel corresponding to the position of the function selector will light up.

CD : Select when you wish to listen to a Compact Disc Player.

AUX : Select when listening to a program source which is conected to the AUX jacks.

TUNER : Select when listening to radio broadcasts from the tuner.

PHONO 1, 2: Select either Phono 1 or Phono 2 when playing a record on the corresponding turntable.

7. FUNCTION INDICATORS

The CD, AUX, TUNER, PHONO 1, 2 function indicators light up in accordance with the position of the function selector.

8. TAPE MONITOR SWITCH

Use these buttons to select the program source which is being reproduced.

TAPE 1 : Select to monitor a recording or a tape being played back on the tape deck which is connected to the TAPE 1 jacks.

TAPE 2 : Select to monitor a recording or a tape being played back on the tape deck which is connected to the TAPE 2 jacks.

OFF : Select whenever you are not playing back a tape or monitoring a recording.

9. TAPE COPY SWITCH

Use these switches when using two tape decks to copy recorded tapes or edit tapes. This switch is otherwise kept at the OFF position.

TAPE 1 ▶ 2: When playing back the tape on a deck connected to the TAPE 1 jacks and recording (copying) on a deck connected to the TAPE 2 jacks.

TAPE 2 ▶ 1: When playing back the tape on a deck connected to the TAPE 2 jacks and recording (copying) on a deck connected to the TAPE 1 jacks.

OFF: Set to this position when not copying.

10. MUTE SWITCH

Set this switch to −20dB to attenuate the audio output indicated by the volume control by 20dB.

11. SUBSONIC FILTER SWITCH

When depressed, the subsonic filter (15Hz cut-off) reduces turntable rumble, record warp noise and other ultra low frequency noise.

12. LOUDNESS SWITCH

This compensates for human hearing characteristics by boosting the bass and treble response at low volume listening levels to achieve a more pleasing tone balance.

LA-1200 STEREO POWER AMPUFIER

SPECIFICATIONS

Amplifier Section
Continuous average power output
(both channel driven)
into 8 Ohms (from 20Hz to 20kHz) 125W
into 8 Ohms (from 1kHz) 150W
into 4 Ohms (from 1kHz) 200W

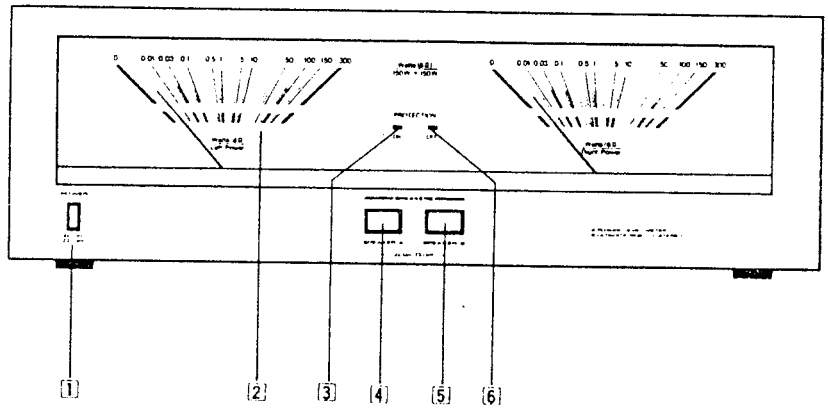
Total Harmonic Distortion
into 8 Ohms (from 20Hz to 20kHz) 0.1%
into 8 Ohms (from 1kHz) 0.03%
into 4 Ohms (from 1kHz) 0.05%

I.M. Distortion 0.03%
Signal to Noise Ratio (IHF "A" Network) 120dB
Input (Sensitivity/Impedance) 1V/47kΩ

Frequency Response
20Hz to 150kHz ..... -3dB
Damping Factor 45
Power "ON" Muting Time ..... 5—7 sec

Miscellaneous
Power requirements AC230V, 50Hz
Power Consumption ..... 435 W, 530VA
Dimension ..... 420(W) × 132(H) × 350(A)mm

FRONT PANEL FEATURES



1. POWER SWITCH

Depress switch to ON position to supply power to the amplifier.

2. OUTPUT LEVEL METER

The output power level meters give a visual indication of audio power being delivered to each speaker.

3 6 PROTECTION CIRCUIT OPERATION INDICATOR LAMP

A red LED indicates when the protection circuit is activated and a green LED indicates when the protection circuit is off.

The protection circuit activates for a 5—7 second period when the unit is powered on and whenever the unit overheats beyond a specific temperature.

4. SPEAKER "A" SELECTOR SWITCH

Depress button to listen to the speaker systems connected to the speaker A terminals.

(ON) — Depressed position; Sound is heard from speaker systems.

(OFF) — Released position; NO sound is heard from speaker systems.

5. SPEAKER "B" SELECTOR SWITCH

Depress button to listen to the speaker systems connected to the speaker B terminals.

(ON) — Depressed position; Sound is heard from speaker systems.

(OFF) — Released position; NO sound is heard from speaker systems.

Note : When both buttons are depressed both speaker pairs A and B are selected.

EXPLODED VIEW PARTS LIST

Note:
- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your Parts Stock Control, the fast moving items are indicated with the marks • • and • .
  • • GENERALLY MOVES FASTER THAN •
  This classification shall be adjusted by each distributor because it depends on model number, temperature, himidity, etc.
- Patts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Part No.	Description
	1	3-111-132-11	Front Panel
	2	3-111-111-01	Panel Stay
	3	3-111-114-01	Bottom Plate
	4	3-111-110-01	Side Frame
	5	3-110-701-01	Rear chassis
	6	3-111-115-01	Bonnet Case
	7	3-111-127-01	Reflector
	8	2-131-321-01	Transformer
	9	2-155-704-01	Push Terminal
	10	3-110-914-01	Function Knob'B'
	11	3-111-129-01	Window
	12	3-111-201-01	Sub Escutcheon
	13	3-111-120-01	LED Sheet
	14	3-312-924-01	Power Knob
	15	3-111-133-11	Sub Plate
	16	2-146-103-01	Pilot Lamp Ass'y
	17	2-202-195-01	Push S/W (ESB997V8)
	*18	2-181-202-14	Fuse(2A)
	19		
	20	2-155-502-01	2P Phone Jack
	21	2-999-107-01	Fuse Holder
	22	2-181-402-64	Fuse 4A
	23	8-201-116-01	Strain Relief Bushing
	24	2-211-125-01	Power Cord
	25	3-111-101-01	Meter
	26	3-310-604-01	Foot
	27	7-764-408-02	Screw
	28	7-394-408-02	Screw
	27	7-764-408-02	Screw
	28	7-394-408-02	Screw
	29	7-764-408-02	Screw
	30	7-394-408-02	Screw
	31	7-814-408-02	Screw
	32	7-394-408-02	Screw
	33	7-394-406-02	Screw
	34	7-764-410-02	Screw
	35	7-768-408-02	Screw
	36	7-394-408-01	Screw
	38	7-394-408-01	Screw
	39	7-764-408-01	Screw
	40	7-518-408-01	Screw
	41	7-394-408-01	Screw
	42	7-394-408-01	Screw
	43	3-413-210-01	Screw
	44	7-394-408-02	Screw
	45	7-394-408-02	Screw
	46	7-814-408-02	Screw
	47	3-111-133-11	Sub Plate
	48	A-170-394-02	Main P.C.B Ass'y
	49	3-111-130-01	Joint
	50	7_394-408-02	Screw
	51	3-981-514-01	Heat Sink Support
	52	3-111-116-01	Heat Sink

NOTES : Assignment of common parts codes.

RESISTOR

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(2) lead type
(1) resistor value

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0.47 ohm --- 478	4.7 ohm --- 479	68 ohm --- 680
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(2) Lead type

PS type --- 1	TP type --- 5

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Disc type
Temp. coeff. P350 - N1000, 50V
(2) tolerance (capacity deviation)
(1) capacity value

Examples

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1000 pF --- 102		

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±2 pF --- 3	±5 pF --- 4	±10 pF --- 5
±20 % --- 6	+50% ~ -20% --- 7	+40% ~ -20% --- 8
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Examples

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(3) lead type
(2) capacity value
(1) working voltage

Examples

(1) Working Voltage

6.3 V --- 1	10 V --- 2	16 V --- 3
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(2) Capacity Value

0.47 uF --- 478	4.7 uF --- 479	33 uF --- 330
470 uF --- 471	2200 uF --- 222	

(3) Lead type

A type --- 1	A type TP --- 5

PARTS PRICE LIST

(LA-1200 / ART. NO.551/996-2)

SN	PART NO.	PART NAME	U/PRICE
1	3-111-104-01	COVER, SIDE	U$0.03
2	3-115-601-01	PANEL, FRONT	6.80
3	7-584-408-02	SCREW	0.01
4	3-111-202-01	ESCUTCHEON (A)	0.04
5	3-110-916-01	ESCUTCHEON, POWER	0.04
6	8-100-102-01	TAPE, BOTH SIDE	1.80
7	8-120-106-01	BOND	5.60
8	3-111-111-01	STAY, PANEL	1.90
9	3-111-105-01	COVER, TOP	0.10
10	3-115-604-01	PLATE, SUB	1.87
11	3-113-301-01	FANCE, TERMINAL	0 12
12	3-111-201-01	ESCUTCHEON, SUB	0 50
13	3-111-134-01	COVER, AL	0.60
14	3-111-129-01	WINDOW	3.48
15	8-120-106-01	BOND	5.60
16	3-111-127-01	REFFLECTOR	2.04
17	2-146-103-02	LAMP, PILOT	0.20
18	3-111-101-02	PANEL, METER	10.90
19	3-830-236-01	SPACER(D)	0.01
20	3-111-120-01	SHEET, LED	0.09
21	7-011-030-02	WASHER	0.01
22	3-111-109-01	BRK'T, PCB	0 06
23	3-413-210-01	RIVET ASS"Y, PLASTIC	0.05
24	3-110-914-01	KNOB(B), FUNCTION	0.03
25	3-111-130-01	JOINT	0.03
26	3-111-110-01	FRAME, SIDE	0 80
27	2-202-195-01	S/W, POWER	1.24
28	3-312-924-01	KNOB, POWER	0.03
29	3-981 514-01	SUPPORT, HEAT SINK	0.12
30	3-111-116-03	HEAT SINK	5.90
31	7-020-030-02	WASHER, SPRING	0 01
32	7-011-030-02	WASHER	0.01
33	8-150-302-01	TUBE, HEAT PROOF	1.30
34	3-115-602-01	CHASSIS, REAR	2.80
35	2-131-321-01	TRANS(POWER)	36.10
36	2-211-125-03	CODE, POWER	2.67
37	8-201-116-01	BUSHING, STRANIN R.	0.04
38	2-155-704-01	TERMINAL, PUSH	0.24
39	2-999-112-01	SOCKET, FUSE HOLDER	1.12
40	2-188-615-01	FUSE	0.09
41	2-188-620-01	FUSE	0.20
42	3-310-604-01	FOOT ASS'Y	0.04
43	3-111-114-01	PLATE, BOTTOM	1.60
44	3-310-604-01	FOOT ASS'Y	0.04
45	3-111-204-01	CUSHION, PCB	0.05
46	3-111-115-01	CASE, BONNET	5.80
47	8-190-133-01	SHEET	0.07
48	8-100-403-01	TAPE, CELLO PHANE	1.80
49	8-180-102-01	BINDER	0 01
50	3-115-603-01	CASE, PACKING	1.25
51	8-100-802-01	TAPE, PACKING	1.28
52	3-111-106-01	PAD, SIDE	0.56
53	8-190-141-01	BAG POLY	0.04
54	3-115-605-01	MANUAL	0.22
55	8-150-417-01	TUBE, INSULATION	0.08
56	2-442-013-72	I.C. POWER	19.95
57	2-505-120-01	POSISTOR	0.38
58	1-998-104-01	CERAMIC CAPACITOR	0.21

SN	PART NO.	PART NAME	U/PRICE
59	8-100-102-01	TAPE, BOTH SIDE	1.80
60	8-120-106-01	BOND	5.60
61	8-100-407-01	TAPE, CELLOPHANE	0.63
62	8-160-202-01	SOLDER (WIRE TYPE)	6.39
63	8-100-802-01	TAPE, PACKING	1.28
64	3-111-205-01	CUSHION, PCB	0.15
65	3-111-214-01	CUSHION(J)	0.04
66	3-111-215-01	CUSHION(K)	0.01
67	2-999-113-01	CARRIER, FUSE HOLDER	1.12
68	8-180-302-01	CLOSE END SPLICE	0.04
69	3-640-408-01	LABEL, SERIAL NO	0.01
70	3-211-804-01	CAP(B), LAMP	0.10
71	3-111-204-01	CUSHION, PCB	0.05
72	2-170-394-03	PCB	1.95
73	2-442-103-75	I.C.	0.53
74	2-442-118-75	I.C.	0.89
75	1-991-110-01	ELEC. CAPACITOR	3.20
76	2-140-117-01	RELAY	1.40
77	2-202-194-01	S/W, SPEAKER	0.85
78	2-155-502-01	JACK, 2P PIN	0.12
79	2-400-114-11	T.R. (KTA970-GR)	0.06
80	2-400-114-21	T.R. (KTA2240-GR)	0.06
81	2-402-111-21	T.R. (KTC1815-Y)	0.03
82	2-410-080-71	DIODE (1S1555)	0.02
83	2-413-559-91	DIODE, BRIDGE	1.63
84	2-413-151-11	DIODE (1N4002)	0.02
85	2-421-150-31	ZENER DIODE (1N9658)	0.05
86	2-419-191-01	L.E.D.	0.05
87	2-419-071-01	L.E.D.	0.05
88	2-551-101-01	SEMI F RESISTOR	0.09
89	1-131-100-23	METAL O RESISTOR 10, 1W, 5%, LM	0.02
90	1-131-101-23	METAL O RESISTOR 100, 1W, 5%.LM	0.02
91	1-131-332-23	" 3.3k, 1W, 5%, LM	0.02
92	1-131-682-23	" 6.8K, 1W, 5%, LM	0.02
93	2-129-207-01	COIL	0.14
94	1-390-115-01	WIRE WOUND RESISTOR	0.09
95	3-610-138-01	HOLDER, LED	0.06
96	2-158-578-01	COUNNECTOR(JP)	0.12
97	2-999-107-01	HOLDER, FUSE	0.03
98	3-211-545-01	BRK'T(B), EARTH	0.03
99	2-168-121-01	WAFER, LOCK	0.02
100	2-155-371-01	TERMINAL WRAPPING	0.01
101	2-159-107-01	CONNECTOR ASS'Y	0.11
102	2-159-111-01	CONNECTOR ASS'Y	0.14
103	1-114-150-25	CARBON F RESISTOR 15, 1/4W, 5%, TP	0.01
104	1-114-101-25	" 100, 1/4W, 5%, TP	0.01
105	1-114-331-25	" 330, 1/4W, 5%, TP	0.01
106	1-114-561-25	" 560, 1/4W, 5%, TP	0.01
107	1-114-821-25	" 820, 1/4W, 5%, TP	0.01
108	1-114-102-25	" 1K, 1/4W, 5%, TP	0.01
109	1-114-222-25	" 2.2K, 1/4W, 5%, TP	0.01
110	1-114-512-25	" 5.1K, 1/4W, 5%, TP	0.01
111	1-114-562-25	" 5.6K, 1/4W, 5%, TP	0.01
112	1-114-103-25	" 10K, 1/4W, 5%, TP	0.01
113	1-114-123-25	" 12K, 1/4W, 5%, TP	0.01
114	1-114-203-25	" 20K, 1/4W, 5%, TP	0.01
115	1-114-333-25	" 33K, 1/4W, 5%, TP	0.01

SN	PART NO.	PART NAME		U/PRICE
116	1-114-473-25	CARBON F RESISTOR	47K, 1/4W, 5%, TP U$	0.01
117	1-114-563-25	"	56K, 1/4W, 5%, TP	0.01
118	1-114-104-23	"	100K, 1/4W, 5%, TP	0.01
119	1-114-224-25	"	220K, 1/4W, 5%, TP	0.01
120	1-144-332-25	"	3.3K, 1/4W, 5%, TP	0.01
121	1-426-478-61	ELEC CAPACITOR	CEA,0.47,20%, 50V,L	0.02
122	1-426-010-61	"	CEA, 1, 20%, 50V, L	0.02
123	1-426-479-61	"	CEA, 4.7,20%, 50V L	0.02
124	1-424-220-61	"	CEA,22,20%,25V,L	0.02
125	1-426-100-61	"	CEA,10,20%,50V, 1	0.02
126	1-424-330-61	"	CEA,33, 20%, 25V, L	0.03
127	1-424-470-61	"	CEA,47,20%,25V, L	0.03
128	1-424-101-61	"	CEA,100, 20%, 25V,k	0.04
129	1-426-221-61	"	CEA,220, 20%, 50V,L	0.12
130	1-425-221-61	"	CEA,220, 20%, 35V,L	0.08
131	1-886-100-11	CERAMIC CAPACITOR	CCDSL 10D, 50V/O	0.01
132	1-886-101-41	"	CCDSL 101J,50V	0.01
133	1-886-471-41	"	CCDSL 471J,50V	0.01
134	1-716-102-51	"	CKDYB 102K,50V	0.01
135	1-998-101-01	"	NCG-001-A	0.25
136	1-506-102-41	MYLAR CAPACITOR	CQMA 102J,50V	0.01
137	1-506-103-41	"	CQMA 103J,50V	0.02
138	1-506-473-41	"	CQMA 473J,50V	0.02
139	8-160-203-01	SOLDER(WIRE TYPE)		6.39
140	8-160-202-01	SOLDER (WIRE TYPE)		6.39
141	8-100-203-01	TAPE, MASKING		1.10
142	8-100-202-01	TAPE, MASKING		0.55
143	8-100-204-01	TAPE, MASKING		1.32
144	8-110-501-01	FLUX		48.-
145	8-110-601-01	SOLVENT(I P.A.)		1.50
146	8-120-106-01	BOND		5 60
147	8-110-101-01	INK, IMMORTALITY		0.25
148	8-991-102-01	WIRE, STAPLE		2.00
149	8-991-102-01	WIRE, STAPLE		2.00
150	8-111-001-01	ANTI OXIDIZER		31.00
151	1-114-181-25	CARBON F RESISTOR		0.01
152	1-886-561-41	CERAMIC CAPACITOR		0.02
153	1-118-332-21	CARBON F RESISTOR		0.01

P.C Board Assemblies

Mark	Part NO	Symbol&Description
	2-170-394-02	PCB
	A-170-394-02	Main pcb ass'y
	A-170-394-02	LED pcb ass'y
	A-170-394-32	Jack pcb ass'y

Others

Mark	Part NO	Symbol&Description
	1-998-104-01	Ceramic Capacitor (0.01 400V)
	2-131-321-01	Power Transformer
	2-181-202-14	Fuse(F2A/250V)
	2-181-402-64	Fuse(T4A/250V)
	2-211-125-01	ACpower cord
	2-202-195-01	Switch(power)

Semiconductor

Mark	Part NO	Symbol&Description
	2-442-013-72	IC101 L/R
	2-442-103-75	IC102
	2-442-118-75	IC103
	2-402-118-11	Q101 L/R
	2-400-114-11	Q102
	2-402-111-21	Q103,104
	2-413-271-31	D106(Bridge Diode)
	2-413-151-11	D101L/R,102,107,108
	2-414-030-81	D109 L/R
	2-421-150-41	D103

Relay

Mark	Part NO	Symbol&Description
	2-140-116-01	RLY101

Coils

Mark		
	2-129-207-01	L101 L/R(AF Coil)

Switch

Mark	Part NO	Symbol&Description
	2-202-194-01	SW103,104(push switch)

Others

Mark	Part NO	Symbol&Description
	2-155-502-01	2P pin Jack

Resistor

Mark	Part NO	Symbol&Description
	1-390-115-01	R109L/R,110L/R,111L/R 112L/R
	1-114-150-25	R139,140
	1-114-101-25	R143,144,150
	1-114-331-25	R116L/R
	1-114-561-25	R104L/R
	1-114-821-25	R118L/R
	1-114-102-25	R101L/R,103L/R,123
	1-114-222-25	R125,132,146,149
	1-114-512-25	R120
	1-114-562-25	R117L/R
	1-114-103-25	R107L/R,147,148,151,1
	1-114-123-25	R119
	1-114-203-25	R124,127,105L/R
	1-114-333-25	R129
	1-114-473-25	R115L/R,121,135,136, 145,152,102L/R
	1-114-563-25	R130
	1-114-104-25	R122,131
	1-114-224-25	R126
	1-114-332-25	R128

Capacitors

Mark		
	1-426-478-61	C122
	1-426-010-61	C110L/R,C111L/R,C11 C116L,C137L/R,C140,C
	1-426-479-61	C102L/R,C136
	1-426-100-61	C123,124,125,12 ,13 139
	1-424-220-61	C118
	1-424-330-61	C120
	1-424-470-61	C119
	1-424-101-61	C104L/R
	1-426-221-61	C108L/R,109L/R,106R, 107R
	1-425-221-61	C106L,107L
	1-886-100-41	C105L/R
	1-886-101-41	C103,112L/R,114L/R
	1-886-471-41	C101L/R
	1-716-102-41	C113L/R
	1-998-101-01	C133,130,131,132
	1-506-102-41	C127,128
	1-506-103-41	C121
	1-506-473-41	C117L/R
	1-991-110-01	C134,135

Resistors

Mark		
	2-551-101-01	VR101,102
	1-131-100-23	R113L/R,114L/R
	1-131-101-23	R106L/R,108L/R
	1-131-332-23	R133,134
	1-131-682-23	R137,138,141,142

Others

	2-419-191-01	D104
	2-419-071-01	D105
	3-610-138-01	LEDholder
	2-999-107-01	Fuse HOlder
	2-158-454-01	Connector Ass'y(2P)
	2-158-455-01	Connector Ass'y(2P)

KPLODED VIEW PARTS LIST

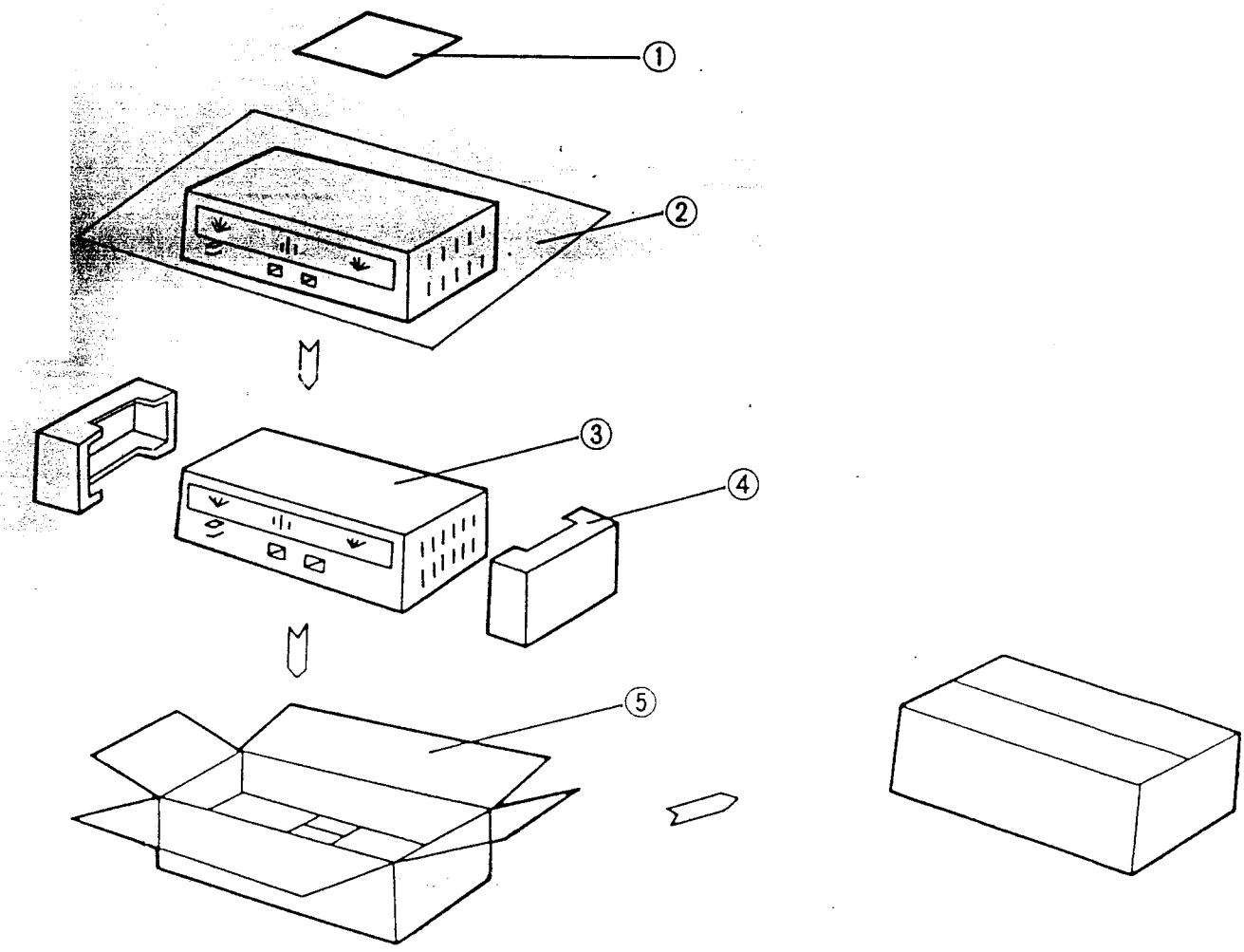
te.
Parts without part number cannot be supplied.
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
For your Parts Stock Control, the fast moving items are indicated with the marks • • and • .
• • GENERALLY MOVES FASTER THAN •
This classification shall be adjusted by each distributor because it depends on model number, temperature, himidity, etc.
• Patts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

ck	No.	Part No.	Description	Mark
	1	3-111-132-11	Front Panel	
	2	3-111-111-01	Panel Stay	
	3	3-111-114-01	Bottom Plate	
	4	3-111-110-01	Side Frame	
	5	3-110-701-01	Rear chassis	
	6	3-111-115-01	Bonnet Case	
	7	3-111-127-01	Reflector	
	8	2-131-321-01	Transformer	
	9	2-155-704-01	Push Terminal	
	10	3-110-914-01	Function Knob'B'	
	11	3-111-129-01	Window	
	12	3-111-201-01	Sub Escutcheon	
	13	3-111-120-01	LED Sheet	
	14	3-312-924-01	Power Knob	
	15	3-111-133-11	Sub Plate	
	16	2-146-103-01	Pilot Lamp Ass'y	
	17	2-202-195-01	Push S/W (ESB997V8)	
	*18	2-181-202-14	Fuse(2A)	
	19			
	20	2-155-502-01	2P Phone Jack	
	21	2-999-107-01	Fuse Holder	
	22	2-181-402-64	Fuse 4A	
	23	8-201-116-01	Strain Relief Bushing	
	24	2-211-125-01	Power Cord	
	25	3-111-101-01	Meter	
	26	3-310-604-01	Foot	
	27	7-764-408-02	Screw	
	28	7-394-408-02	Screw	

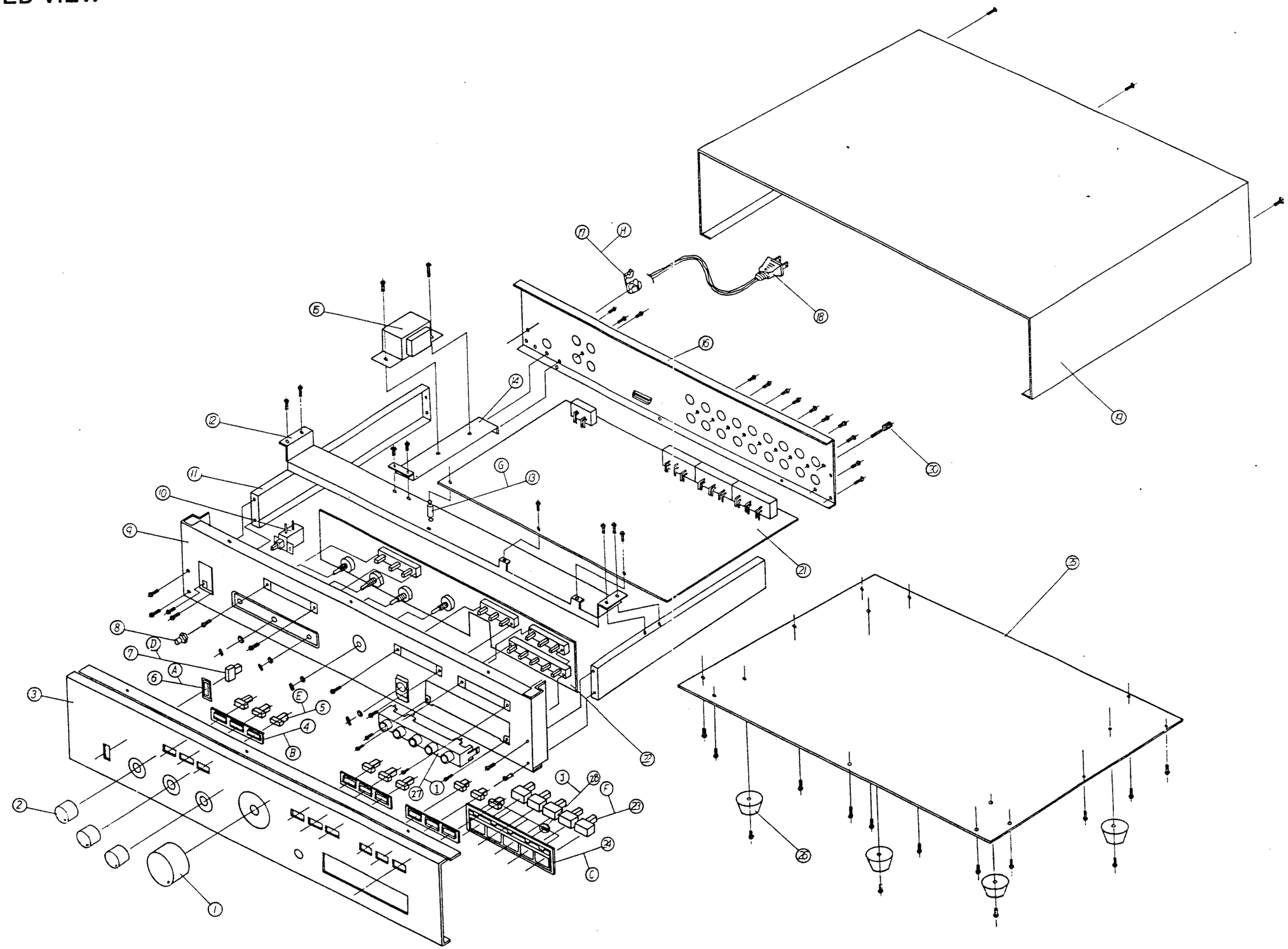
No.	Part No.	Description
27	7-764-408-02	Screw
28	7-394-408-02	Screw
29	7-764-408-02	Screw
30	7-394-408-02	Screw
31	7-814-408-02	Screw
32	7-394-408-02	Screw
33	7-394-406-02	Screw
34	7-764-410-02	Screw
35	7-768-408-02	Screw
36	7-394-408-01	Screw
38	7-394-408-01	Screw
39	7-764-408-01	Screw
40	7-518-408-01	Screw
41	7-394-408-01	Screw
42	7-394-408-01	Screw
43	3-413-210-01	Screw
44	7-394-408-02	Screw
45	7-394-408-02	Screw
46	7-814-408-02	Screw
47	3-111-133-11	Sub Plate
48	A-170-394-02	Main P.C.B Ass'y
49	3-111-130-01	Joint
50	7-394-408-02	Screw
51	3-981-514-01	Heat Sink Support
52	3-111-116-01	Heat Sink

PACKING

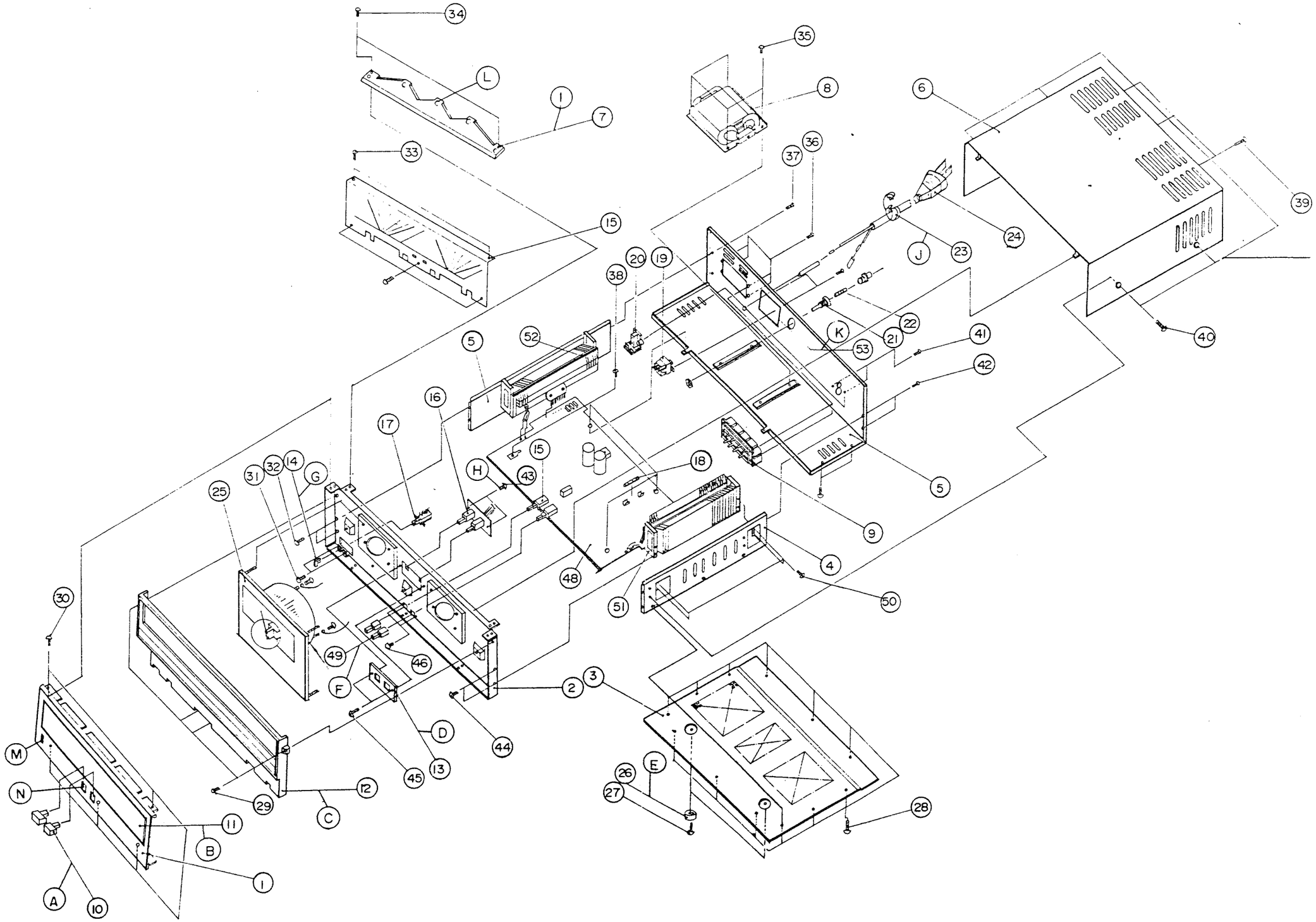
Mark	No.	Part No.	Description
	1	3-110-703-01	Operating Instruction
	2	8-190-133-01	Poly Sheet
	3		Power Amp Set
	4	3-111-106-01	Side pad(R,L)
	5	3-110-702-01	Packing Case



EXPLODED VIEW



EXPLODED VIEW



AF UNIT ASS'Y 2-170-390-02

NO.	DATE	REVISION RECORD	CH	NO.	DATE	REVISION RECORD	CH
1				5			
2				6			
3				7			
4				8			

Q101, 102 : 2SK 96 GR
Q103, 104, 105, 106, 113, 114 : KTC 2240 BL
Q107/108, 109, 110, 111, 112 : KTA 970 BL
Q115, 116 : KTC 2240 GR
Q117, 118 : KTA 970 GR
D101, 102 : 1S1473 or 1S1555
R1, R2, R3, R4 : 1K

C1 - C32 : 390P

CONTROL ASS'Y
NNP-251-A

SWITCHES

SI-1 CD	: ON-OFF	
SI-2 AUX	: ON-OFF	
SI-3 TUNER	: ON-OFF	
SI-4 PHONO 1	: ON-OFF	
SI-5 PHONO 2	: ON-OFF	
S2-1 TAPE MONITER	OFF : ON-OFF	
S2-2 TAPE 2	: ON-OFF	
S2-3 TAPE 1	: ON-OFF	
S3-1 TAPE COPY	: ON-OFF	
S3-2 2▶1	: ON-OFF	
S3-3 1◀2	: ON-OFF	

S101	VOLTAGE SELECT	: 100V-220V	RL 1 : ON-OFF
S201	POWER SWITCH	: ON-OFF	RL 2 : ON-OFF
S4-1	LOUDNESS	: ON-OFF	
S4-2	SUBSONIC	: ON-OFF	
S4-3	MUTE	: ON-OFF	

THE UNDERLINED INDICATES THE SWITCH POSITION

D301, 302, 303, 304, 305 : KLR 114 E
D306, 308 : 1S2473 or 1S1555
D307 : 1N 969
D309 : 1N 4002 or 10E2
D310 : 1N 967

D401 : KTC 2240BL
D402, 407 : KTD 880 Y
D403 : KTC 2240 GR
D404 : KTA 970 BL
D405 : KTB 884 Y
D406 : KTA 970 GR

D401, 402, 403, 404, 406, 407 : 1S4002 or 10E2
D405 : 1N 966
D408 : 1N 973

Q201, 202, 203, 204 : KTK 97 GR
Q205, 206, 207, 208, 213, 214 : KTC 2240 BL
Q209, 210, 211, 212 : KTA 970 BL
Q215, 216 : KTC 2240 GR
Q217, 218 : KTA 970 GR
D201 - 206 : 1S2473 or 1S1555

Q301, 302, 303, 340, 311 : KTC 3199 GR
Q304, 306, 307 : KTD 1577 AY
Q305, 308, 309 : KTC 1627 AY

POWER TRANSFORMER
2-131-320-01

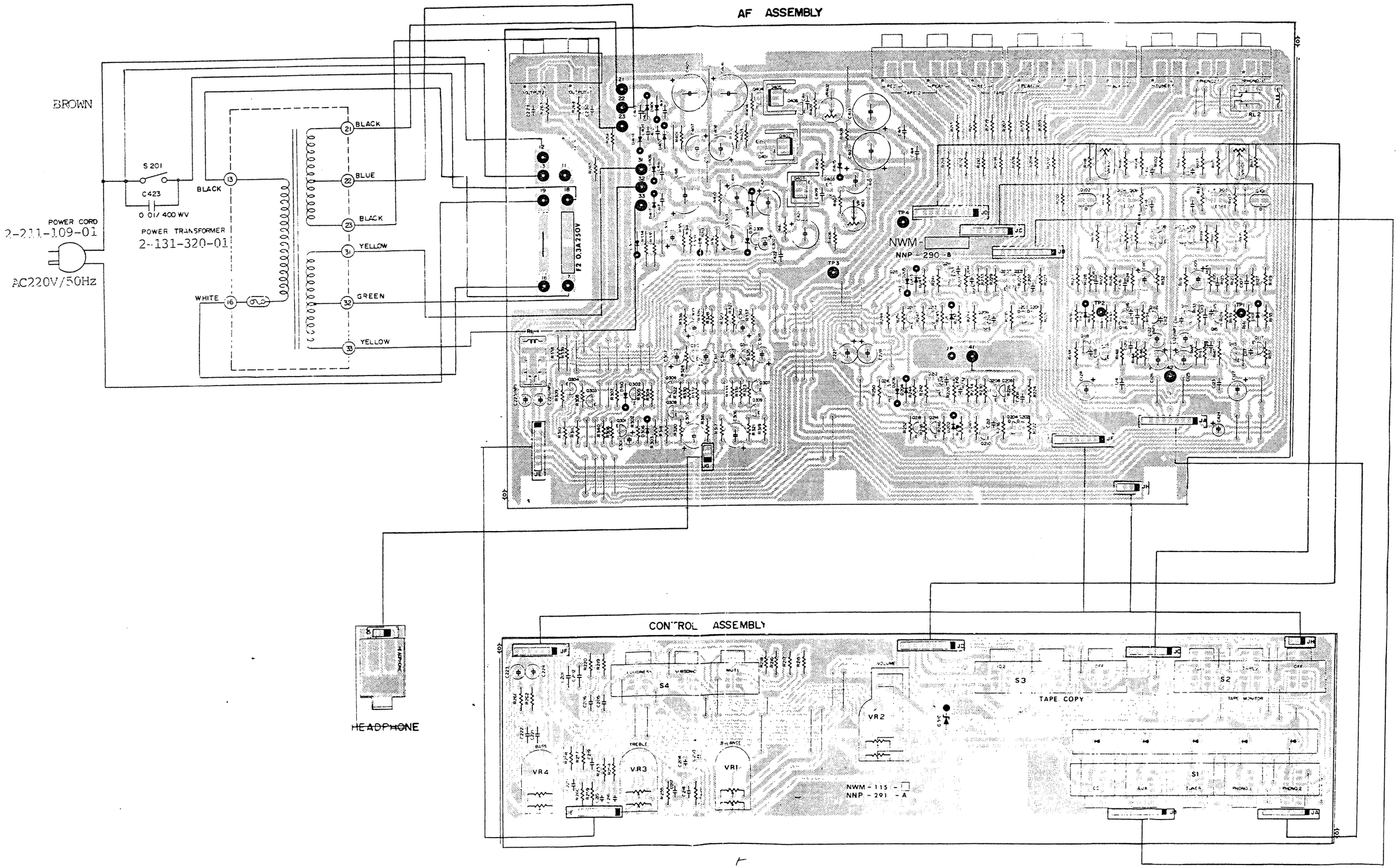
1. RESISTORS
INDICATED IN Ω, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K : KΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (H) : ±3%, (I) : ±10%, (J) : ±20% TOLERANCE.

2. CAPACITORS
INDICATED IN CAPACITY (μF) / VOLTAGE (V) UNLESS OTHERWISE NOTED P : pF
INDICATION WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.

3. VOLTAGE CURRENT
▭ : DC VOLTAGE (V) AT NO INPUT SIGNAL
VALUE IN ( ) IS DC VOLTAGE AT RATED POWER.

4. OTHERS
⇨ : SIGNAL ROUTE
⊘ : ADJUSTING POINT
THE ⚠ MARK FOUND ON SOME COMPONENT PARTS INDICATES THE IMPORTANCE OF THE SAFETY FACTOR OF THE PART. THEREFORE, WHEN REPLACING BE SURE TO USE PARTS OF IDENTICAL DESIGNATION.

TOP VIEW OF P.C. BOARDS POINT-TO-POINT WIRING DIAGRAM



PCB NNP-294-B
MAIN B'd
NWM-105-A

IC 101L
STK 4048 X1

PL : PR = PTH487 A01 80222TS
POSISTOR (MURATA)

POWER LEVEL METER
LEFT
RIGHT

LEFT SPEAKER A
G
RIGHT
LEFT SPEAKER B
G
RIGHT

TRANSFORMER
2-134-321-01

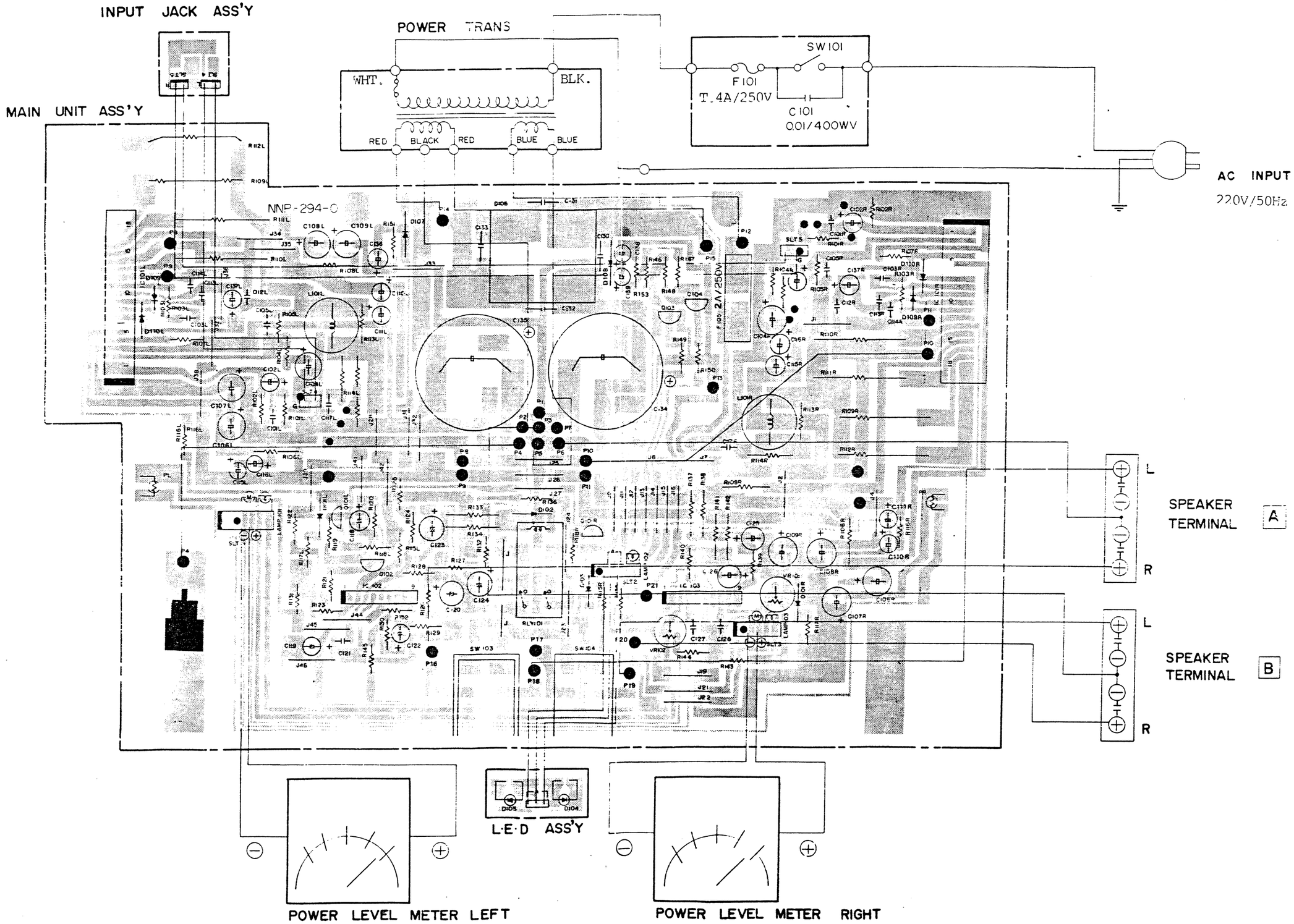
AC POWER CORD
2-211-625-01
AC 250V/50Hz

THERMAL FUSE

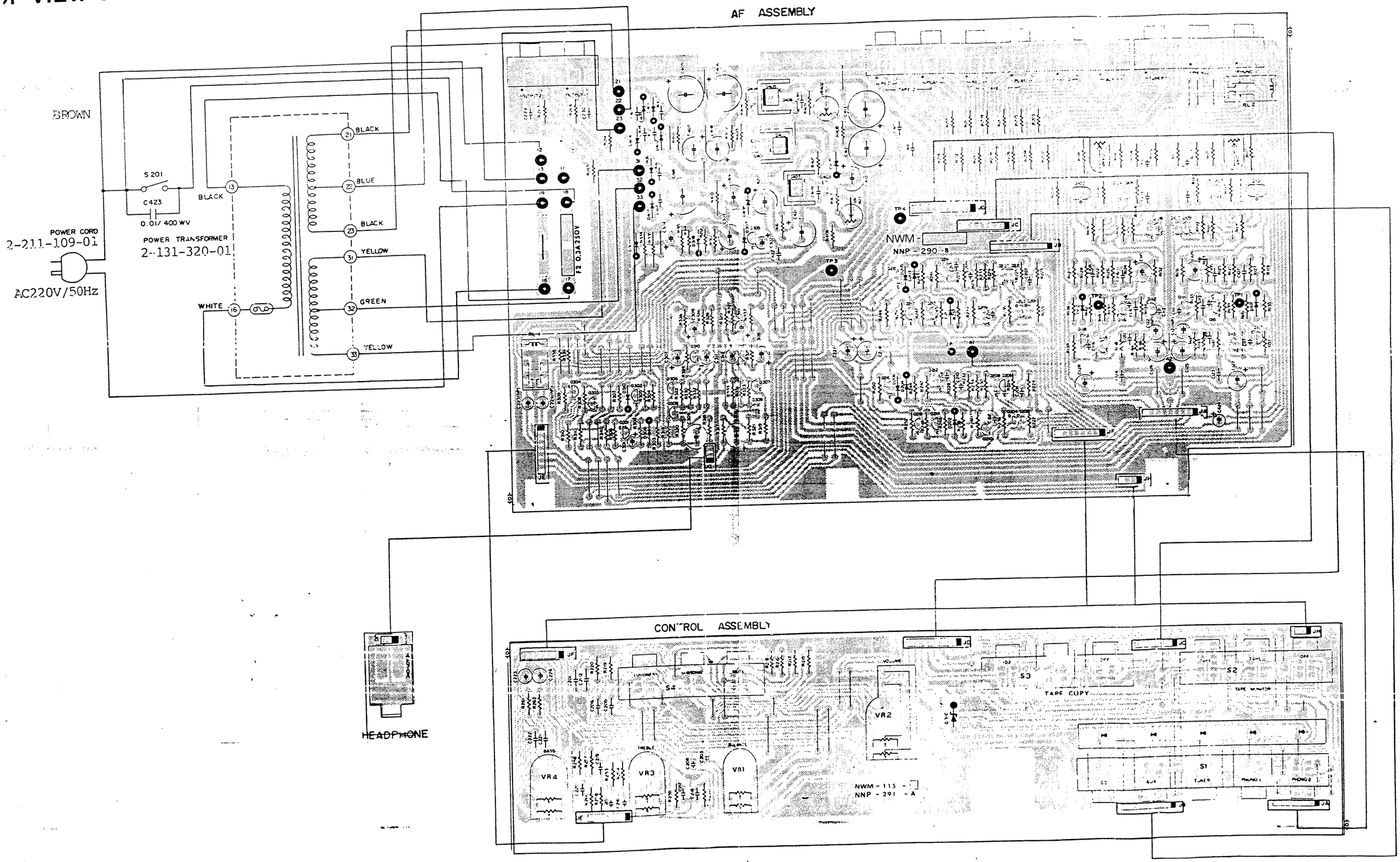
IC 101R
STK 4048 X1

NECK-02477 / DRUCK 7

TOP VIEW OF P.C. BOARDS POINT-TO-POINT WIRING DIAGRAM



)P VIEW OF P.C. BOARDS POINT-TO-POINT WIRING DIAGRAM



AF UNIT ASS'Y 2-170-390-02

NO.	DATE	V	REVISION RECORD	CK
1				
2				
3				
4				

NO.	DATE	V	REVISION RECORD	CK
5				
6				
7				
8				

Q101, 102 : 2SC496 GR
Q103, 104, 105, 106, 111, 114 : KTC 3240 BL
Q107, 108, 109, 110, 112, 113 : KTA 970 BL
Q115, 116 : KTC 3240 GR
Q117, 118 : KTA 970 GR
D101, 102 : 1S2473 or 1S1555
R1, R2, R3, R4 : 1K

CONTROL ASS'Y
NNP-251-A

SWITCHES

S1-1 CD ON-OFF
S1-2 AUX ON-OFF
S1-3 TUNER ON-OFF
S1-4 PHONO 1 ON-OFF
S1-5 PHONO 2 ON-OFF

S2-1 TAPE MONITER OFF ON-OFF
S2-2 TAPE 2 ON-OFF
S2-3 TAPE 1 ON-OFF

S3-1 TAPE COPY ON-OFF
S3-2 1-2 ON-OFF
S3-3 1-2 ON-OFF

S101 VOLTAGE SELECT 100V-220V
S201 POWER SWITCH ON-OFF
S4-1 LOUDNESS ON-OFF
S4-2 SUBSONIC ON-OFF
S4-3 MUTE ON-OFF

RL1 : ON-OFF
RL2 : ON-OFF

THE UNDERLINED INDICATES THE SWITCH POSITION

D301, 302, 303, 304, 305 : KLR1M-E
D306, 308 : 1S2473 or 1S1555
D307 : 1N 956
D309 : 1N 4002 or 1O-E2
D310 : 1N 967

Q401 : KTC 2246BL
Q402, 407 : KTD 880 Y
Q403 KTC 2240 GR
Q404 KTA 970 BL
Q405 KTB 884 Y
Q406 : KTA 970 GR

D401, 402, 403, A04, 406, 407 : 1N4002 or 1O-E2
D405 : 1N 966
D408 : 1N 973

1. RESISTORS
INDICATED IN Ω, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K : KΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (H) : ±3%, (J) : ±5% TOLERANCE.

2. CAPACITORS
INDICATED IN CAPACITY (μF) / VOLTAGE (V) UNLESS OTHERWISE NOTED P : pF
INDICATION WITHOUT VOLTAGE IS 50 V EXCEPT ELECTROLYTIC CAPACITOR.

3. VOLTAGE CURRENT
DC VOLTAGE (V) AT NO INPUT SIGNAL
VALUE IN ( ) IS DC VOLTAGE AT RATED POWER

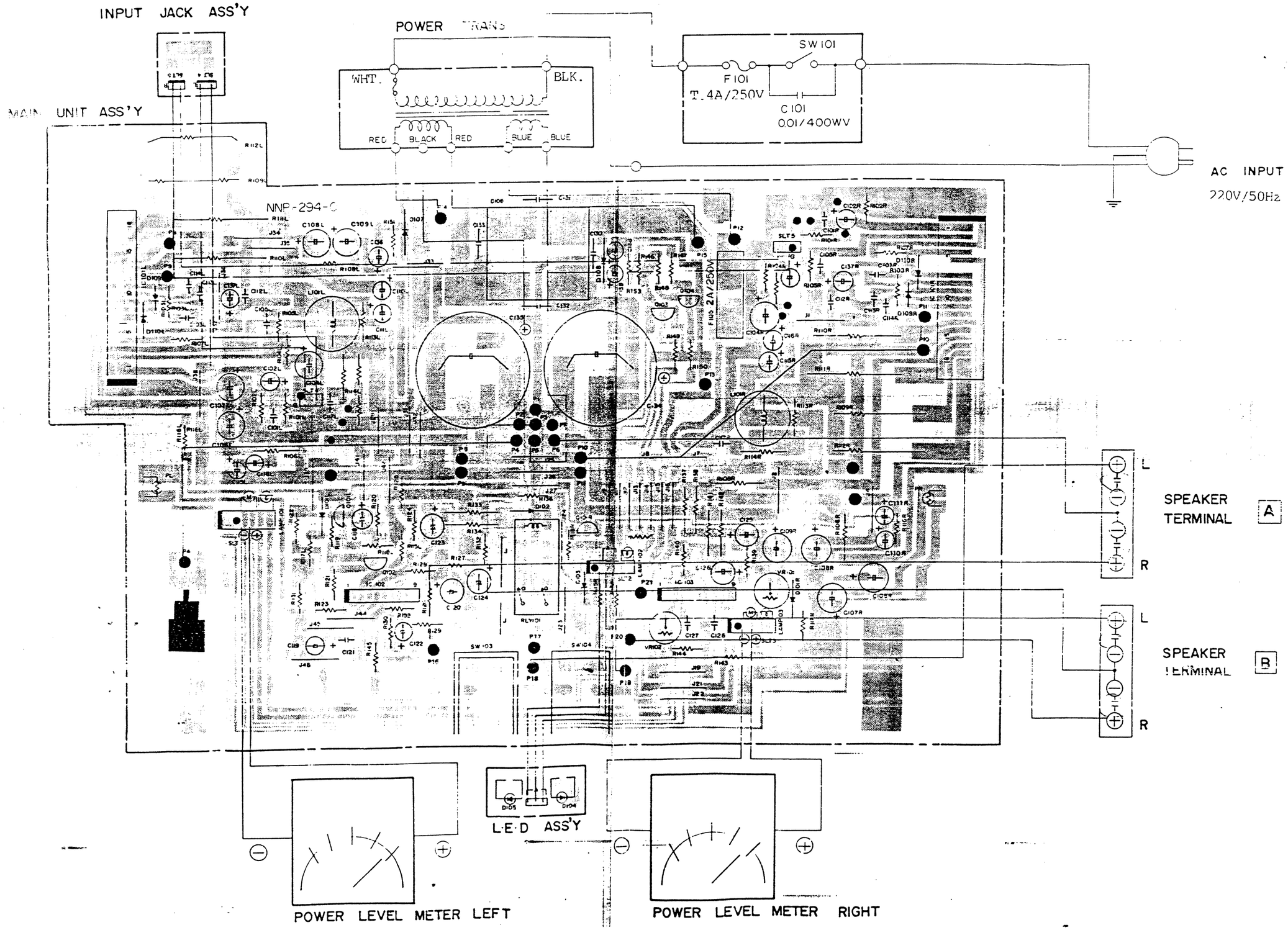
4. OTHERS
SIGNAL ROUTE
ADJUSTING POINT
THE ⚠ MARK FOUND ON SOME COMPONENT PARTS INDICATES THE IMPORTANCE OF THE SAFETY FACTOR OF THE PART. THEREFORE, WHEN REPLACING BE SURE TO USE PARTS OF IDENTICAL DESIGNATION.

Q201, 202, 213, 214 : KTK 67 GR
Q203, 204, 207, 208, 211, 212 : KTC 2240 BL
Q209, 210, 215, 216 : KTA 970 BL
Q217, 218 : KTC 2240 GR
D201 - 206 : 1S2473 or 1S1555

POWER TRANSFORMER
2-131-320-01

AC POWER CORD
2-211-109-01

TOP VIEW OF P.C. BOARDS POINT-TO-POINT WIRING DIAGRAM



PCB NNP-294-B
MAIN B'd
NWM-106-A

IC 101L
STK 4048 X1

IC 101R
STK 4048 X1

PL : PR = PTH487 A01 BD222TS
POSISTOR (MURATA)

POWER LEVEL METER
LEFT RIGHT

LEFT SPEAKER A
G
RIGHT

LEFT SPEAKER B
G
RIGHT

TRANSFORMER
2-134-321-01

AC POWER CORD
2-211-625-01

AC 250V / 50Hz

THERMAL FUSE

INPUT LEFT

INPUT RIGHT

AF UNIT ASS'Y 2—

Q101,102: 2SK146 GR
Q103,104,105,106,113,114: KTC 2240 BL
Q107,108,109,110,111,112 : KTA 970 BL
Q115,116 : KTC 2240 GR
Q117,118 : KTA 970 GR
D101,102: 1S2473 or 1S1555
R1, R2, R3, R4 : 1K

C1 — C32 : 330P

SWITCHES

S1-1 CD : ON—OFF
S1-2 AUX : ON—OFF
S1-3 TUNER : ON—OFF
S1-4 PHONO 1 : ON—OFF
S1-5 PHONO 2 : ON—OFF

S2-1 TAPE MONITER OFF. : ON—OFF
S2-2 TAPE 2 : ON—OFF
S2-3 TAPE 1 : ON—OFF

S3-1 TAPE COPY : ON—OFF
S3-2 2▶1 : ON—OFF
S3-3 1◀2 : ON—OFF

S201 POWER SWITCH : ON—OFF
S4-1 LOUDNESS : ON—OFF
S4-2 SUBSONIC : ON—OFF
S4-3 MUTE : ON—OFF

THE UNDERLIEND INDECATES THE SWITCH POSITION

RL 1 : ON—OFF
RL 2 : ON—OFF

Q401: KTC2240BL
Q402,407: KTD 880 Y
Q403: KTC 2240 GR
Q404: KTA 970 BL
Q405: KTB 834 Y
Q406: KTA 970 GR

D301,302,303,304,305 : KLR 114 E
D306,308 : 1S2473 or 1S1555
D307 : IN 959
D309 : IN 4002 or 10E2
D310 : IN 967

LA-1000 SS1/936-1

2-170-390-02

MRK	DATE	PNO	REVISION RECORD	DR.	MRK	DATE	PNO	REVISION RECORD	DR
1	. .				5	. .			
2	. .				6	. .			
3	. .				7	. .			
4	. .				8	. .			

Q201, 202, 203, 204: KTK 117 GR
Q205, 206, 207, 208, 213, 214: KTC 2240 BL
Q209, 210, 211, 212: KTA 970 BL
Q215, 216: KTC 2240 GR
Q217, 218: KTA 970 GR
D201 - 206: IS2473 or ISI555

Q301, 302, 303, 310, 311 : KTC 3199 GR
Q304, 306, 307: KTA817AY
Q305, 308, 309: KTC1627AY

C2240BL
7: KTD 880 Y
TC 2240 GR
TA 970 BL
TB 834 Y
TA 970 GR

D401, 402, 403, 404, 406, 407 : IN4002 or 10E2
D405: IN 966
D408: IN 873.

POWER TRANSFORMER
2 - 131 - 320 - 01

AC POWER CORD
2 - 211 - 109 - 01

1. RESISTORS:
INDICATED IN Ω, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED. K: KΩ; M: MΩ; (F) ±1%, (G) ±2%; (K) ±10%; (M) ±20% TOLERANCE.

2. CAPACITORS:
INDICATED IN CAPACITY (μF) / VOLTAGE (V) UNLESS OTHERWISE NOTED. P: pF. INDICATION WITHOUT VOLTAGE IS 50 V EXCEPT ELECTROLYTIC CAPACITOR.

3. VOLTAGE - CURRENT:
□: DC VOLTAGE (V) - AT NO INPUT SIGNAL
VALUE IN ( ): DC VOLTAGE AT RATED POWER.

4. OTHERS:
SIGNAL ROUTE
ADJUSTING POINT
THE ⚠ MARK FOUND ON SOME COMPONENT PARTS INDICATES THE IMPORTANCE OF THE SAFETY FACTOR OF THE PART. THEREFORE, WHEN REPLACING BE SURE TO USE PARTS OF IDENTICAL DESIGNATION.

NO	PARTS NO	PARTS NAME	SPEC	QTY	REMARK
APPROVAL	CHECK	DRAWN	DESIGN	SCALE	LA-1000

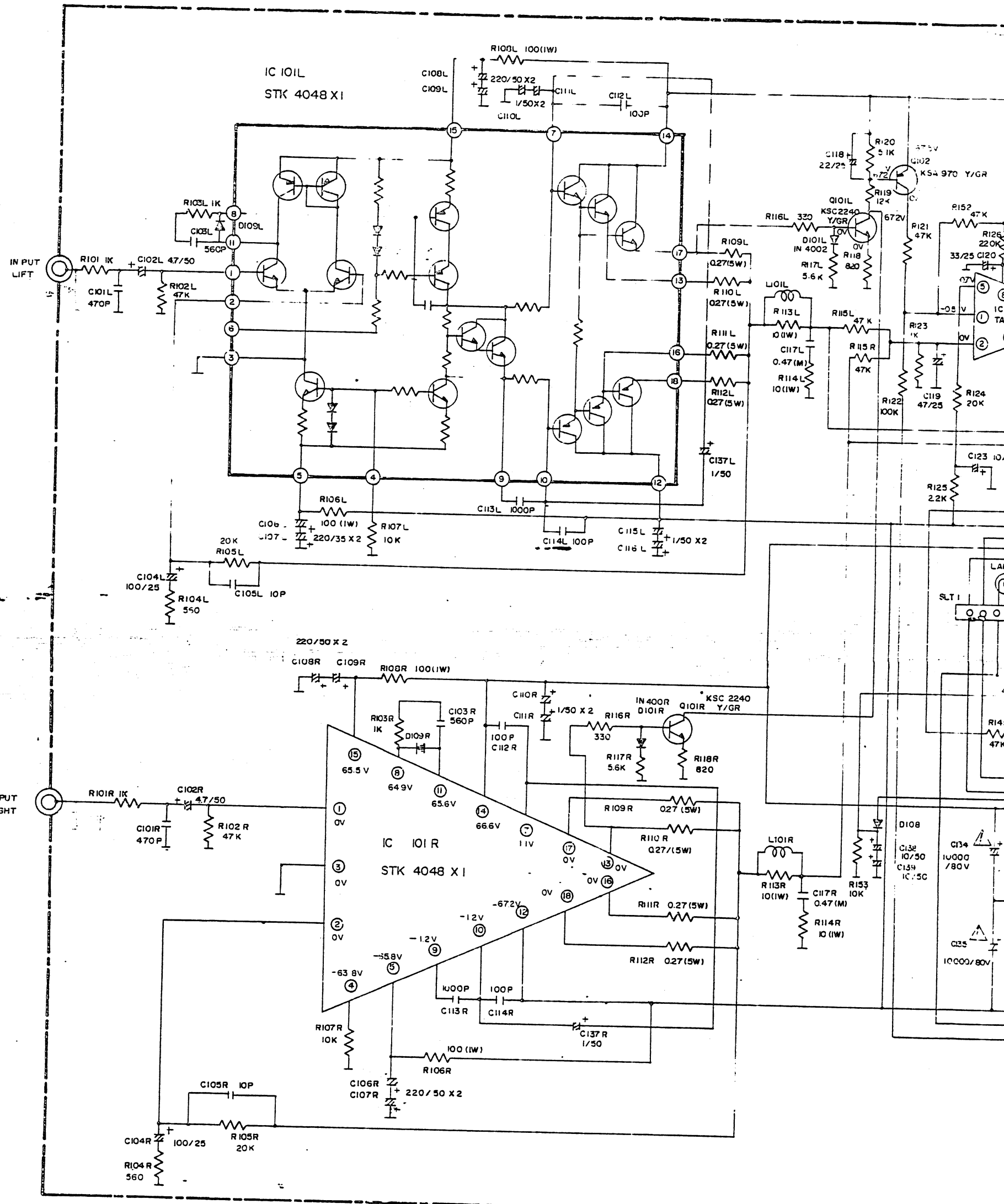
SCHEMATIC DIAGRAM

LOTTE ELECTRONICS CORP

IN — 811-2

正出国
1988. 10. 27
프레따이오니아
開發部

PCB NNP-294-B
MAIN B'd
NWM-106-A



LH 1200 = 551/996-2

PR = PTH487 A01 BD222TS
POSISTOR (MURATA)

R120 5.1K
Q102 KSA 970 Y/GR
R119 12K
6.72V
R121 47K
R152 47K
R126 220K
33/25 C120
R127 2
R128 3.3K
C121 0.01 (M)
IC102 TA7317P
R123 1K
R130 56K
C122 0.47/50
R129 33K
R131 100K
R122 100K
C119 47/25
R124 20K
C123 10/50
R125 2.2K
C124 10/50
R132 2.2K
D102 IN 4002
RLY101
24V RELAY
R133 3.3K (1W)
R134 3.3K (1W)
PL
PR
R135 4.7K
C141 1/50
C140 1/50
R136 47K
IC103 IC 7318P
VR101 100 (B)
VR102 100 (B)
C128 0.001(M)
R140 15
C127 0.001(M)
R143 180
R144 180
R137
R138 6.8K(1W) X2
C125 10/50
R139 15
SEMI - R100
C126 10/50
R141
R142 6.8K(1W)X2

POWER LEVEL METER
LEFT
RIGHT

LAMP 101
LAMP 102
LAMP 103
SLT 1
SLT 2
SLT 3
45.8V
R146 2.2K
R147 10K
R145 47K
D103 WZ012
Q103 KSC1815
R148 10K
R149 2.2K
Q104 KSC1815
R150 100

KLG 208E
D104
D105
RED 33K X 2
PCB B'D NWS-057-A
KLR 208E GREEN

SPEAKER SW SW 103
SPEAKER SW SW 104
1500P
LEFT SPEAKER A
G
RIGHT
LEFT SPEAKER B
G
RIGHT

AC
67.5V
C130 0.01/250V
C131 0.01/250V
C134 10000/80V
D106 BR 252 P
C135 10000/80V
C132 0.01/250V
C133 0.01/250V
-67.5V
RED
BLACK
RED
BLU
BLU
IN 4002 D107
-8.5V
F105 2A/250V
R151 10K
C136 47/50
D108
C138 10/50
C139 10/50

TRANSFORMER
2-131-321-01
F101 T4A/250V
C101 0.01/400WV
AC POWER CORD
2-211-125-01
AC 250V/50Hz
THERMAL FUSE

正出図
1988. 10. 27
ロ大パイオニア
開発部